

New division at Argonne-West will focus on spent fuel treatment, waste technologies

A new Nuclear Technology Division has been created at Argonne-West to bring together expertise in spent fuel treatment and nuclear waste management technologies.

The Nuclear Technology Division incorporates employees from the Engineering and Technology Development divisions at Argonne-West.

Robert Benedict has been named director of the new division. Harold McFarlane and Paul Henslee will serve as associate directors. Benedict and Henslee will also retain their responsibilities for the



Benedict

Chang, associate laboratory director for Engineering Research.

The changes will help assure a successful completion of the demonstration and deal effectively with

Experimental Breeder Reactor-II spent fuel treatment demonstration project.

The reorganization was prompted by the technical progress in the demonstration project, said Yoon

future opportunities and missions for Argonne-West, Chang said.

The Technology Development Division is being reorganized to incorporate the current Argonne-East programs. Sam Bhattacharyya will direct the Technology Development Division; Tom Yule and Phillip Finck will serve as associate directors.

Mike Lineberry, who served as TD's division director for eight years, will step down to take a special assignment on program development in the newly created Nuclear Technology Division.

Bulletins now posted to Web page

The weekly bulletin board announcements for Argonne-East, including standard postings, calendars, announcements, cafeteria information, death notices and job postings, are now available on the World Wide Web at <http://www.hr.anl.gov/anlbb>.

ACA seeking employees' used books

The Argonne Combined Appeal (ACA) will collect used books during the month of August for its second annual used book sale to be held Sept. 10-11.



Collection boxes at Argonne-East will be in the lobbies of Buildings 201, 203, 205, 362, 401, 900 and the Building 213 Cafeteria beginning Monday, Aug. 3. Textbooks, magazines, encyclopedias or Reader's Digest condensed books cannot be accepted. Books will be collected until Sept. 1.

For more information on the Combined Appeal see the ACA home page at <http://www.anl.gov/ACA/aca-home.html>.

Microscopy society honors MSD's Zaluzec

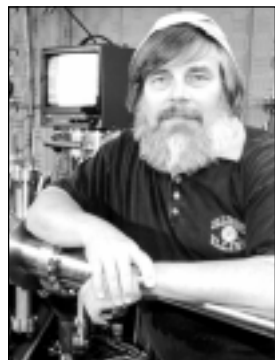
Nestor Zaluzec (MSD) has been honored with the Microscopy Society of America's Morton D. Maser Distinguished Service Award for 1998.

The award is presented to individuals who have contributed to, and have had a profoundly positive effect on, the society and the microscopy community through exceptional work over a period of years.

Zaluzec received his award at the society's 56th annual meeting in Atlanta July 12-16.

He has also received the society's Burton Medal in 1982, which honors distinguished contributions to the field by a scientist under 35, and a num-

ber of other awards for his efforts in international collaboration and education.



Zaluzec

years. He developed several original techniques for determining the elemental composition of materials, and continues to work on new

technologies and instruments for materials characterization.

His most recent research centers on Argonne's Advanced Analytical Electron Microscope and "TelePresence Microscopy," in which scientists can conduct microscopy studies via the World Wide Web.

He is co-principal investigator in the Materials MicroCharacterization Collaboratory (MMC), which allows researchers to control the microscope, interact with other, geographically distant researchers and consult with experts while conducting research. The MMC Web site is at <http://tpm.amc.anl.gov/MMC/>.

Employees volunteer their language skills to Translator Network

From Arabic to Urdu, 129 bi- or multi-lingual employees who are members of Argonne-East's Translator Network can translate 36 foreign languages. The network, established by Human Resource's Diversity Program Office, assists employees and applicants for whom English is a second language.

Translators are typically needed to assist employees with communicating to other employees within their division, or to translate writ-

ten communication. Occasionally, an employee fluent in sign language is needed to assist the hearing impaired.

One network member, Hans Kaper (MCS), is fluent in Dutch, French, German and English, and knows Latin and classical Greek (which he still reads). As chairman of Arts at Argonne, he finds that speaking these languages is an asset when he communicates with artists who come to perform at Ar-

gonne who are not always fluent in English. "They are relieved to be



Kaper

able to converse in a language more familiar to them," said Hans. "In Europe, I usually ask my host which language they prefer; no advance warning needed."

Job applications, job offers and government forms are examples of things Kaper trans-

lates, and he was recently asked to translate a patent from German to English.

Employees seeking a translator may do so by accessing the Human Resources' Home Page (<http://www.hr.anl.gov/>). Click on the links for "Employee Services" and then "Translator Network."

Volunteers are always needed. To join the network, call Carolyn Arthur (HR) at ext. 2-3021.

— Joan Waltz

Inside this issue ■ Argonne in the News ■ Free safety inspection class offered
■ Seminar designed for secretaries new to management

Seminar is aimed at 'The Secretary in Transition'

"Successful Supervision and Leadership: The Secretary in Transition," a two-day seminar sponsored by Human Resources, will be held Sept. 16-17 at Argonne-East.

The American Management seminar will be held from 8:30 a.m.-

5 p.m. in Building 208, Room A138. Cost per person is \$900, based on a class size of 10 participants.

This seminar is designed for secretaries and administrative assistants who are new to supervision. Participants learn how to supervise

others, establish authority and credibility, use problem-solving and decision-making strategies, create motivation and deal fairly, yet effectively with "problem" people.

Call Betty Iwan (HR) at ext. 2-3410 for more information.

HR to hold workplace skills classes in August

Human Resources will hold the following classes at Argonne-East in August:

■ "The Supervisory Role in Managing Employee Issues" (HR643) — Thursday, Aug. 6, 9 a.m. - 3 p.m., Building 362, Room F108. The class is free.

■ "Introduction to Team Building" (HR631) — Thursday, Aug. 13,

8:30 a.m. - 3:30 p.m., Building 362, Room F108. Cost is \$25.

■ "Performance Management" (HR561) — Wednesday, Aug. 19, 1 p.m. - 4 p.m., Building 201, Room 274. The class is free.

■ "Preventing Sexual Harassment For Supervisors" (HR140) — Thursday, Aug. 20, 9 a.m. - 10:30 a.m., Building 201, Room 274. The

class is free.

■ "Wake Up Your Creative Genius" (HR232) — A "brown bag" lunch seminar, Wednesday, Aug. 26, 11:30 a.m. - 1 p.m., Building 201, Room 238. Cost is \$40.

Complete class descriptions can be found on the Human Resources World Wide Web pages at <http://www.hr.anl.gov/services2.htm>.

Seminars

Send seminar listings to Evie Fagan, Building 201, Room 2U-09 (OPA-201). Deadline is 5 p.m. Monday. Seminar listings *only* can be sent by e-mail to efagan@anl.gov. Note new e-mail address.

Thursday, July 30

Physics Division Theoretical Physics Seminar: **"A Systematic Study of Power Corrections in Deep Inelastic Scattering"** by Simonetta Liuti, University of Virginia, Charlottesville. 10:30 a.m., Bldg. 203, Conference Room B221.

Monday, August 3

Physics Division Seminar: **"Spectroscopy of Exotic Nuclei with the S800 Spectrograph"** by Jac Caggiano, Michigan State University, East Lansing. 3:30 p.m., Bldg. 203, Conference Room B221.

Wednesday, August 5

Environmental Research Division Seminar: **"The DOE/OBER Global Change Education Program (GCEP): An Update"** by Jeffrey Gaffney (ER). 2 p.m., Bldg. 203 Auditorium.

Thursday, August 6

Experimental Facilities Division Seminar: **"X-ray Sensor and a-Si:H TFTs: A New Generation of Very Large Area X-ray Images"** by Brian Rodricks, Sterling Diagnostic Imaging, Inc., Newark, DE. 10:30 a.m., Bldg. 401, Conference Room B4100.

Chemistry Division Special Seminar: **"Dynamical and Thermal Behavior of Fullerenes"** by Maria J. Lopez, Dept. of Theoretical Physics, University of Valladolid, Spain. 2 p.m., Bldg. 200, Conference Room J183.

Special Physics Division Seminar: **"Dynamical Theory of Synthesis of Super Heavy Elements"** by Yasuhisa Abe, Kyoto University, Tokyo, Japan. 3:30 p.m., Bldg. 203, Conference Room B221.

Friday, August 7

Chemistry Division Seminar: **"Directed Electron Transfer Relay in Photosynthetic Models"** by Atsuhiko Osuka, Kyoto University, Japan. 11 a.m., Bldg. 200, Conference Room J183.

Monday, August 10

High Energy Physics Division Theoretical Physics Seminar: **"Mass and Decay of the Lowest Glueball in QCD"** by Tao Huang, Institute of High Energy Physics, Beijing, P.R. China. 2 p.m., Bldg. 362, Conference Room E188.

Physics Division Seminar: **"Spectroscopy of ¹⁰⁰Sn"** by Andreas Stolz, Technical University of Munich, Germany. 3:30 p.m., Bldg. 203, Conference Room R150.



Snap judgement

This somewhat dehydrated North American snapping turtle was rescued from a flattened fate on the busy roadway in front of Argonne-East's Building 214 by Joe Lucas (ET), Rich McDaniel (ET) and Ron Clark (ET). The three employees urged the "very much alive" turtle into a 40-gallon waste container and carried it to Sawmill Creek. "As he swam down the creek," Lucas said, "he turned and bobbed his head as if to say, 'thanks guys, this is a lot better than becoming part of that pavement.'"

Free safety inspection class offered

ESH Training will sponsor a free course on "Safety Inspections" at Argonne-East in September.

The two-session course will be presented by the National Safety Council and will include the office environment as well as laboratories and shops. It will target environment, safety and health coordinators and building managers, but other personnel are welcome.

Classes will be held Wednesday, Sept. 2, and Friday, Sept. 11, from 8:30 a.m. to 4:30 p.m. in Building 402, Rooms E1100-1200.

Contact a Training Management System representative to register for class ESH530.



What's for lunch?

Menus for the cafeterias at both Argonne sites and the Guest House are at: <http://www.anl.gov/OPA/local/anlnews.html>



Argonne News is published weekly for Argonne employees by the Office of Public Affairs. Send news items to Editor Dave Jacqué, Building 201, Room 2Q-02 (OPA-201). Voice: ext. 2-5582. Fax: ext. 2-5274. E-mail: info@anl.gov. Argonne-West correspondent: Dolores Lagerquist, Bldg. 752, ext. 3-7523. Deadline for all materials is 5 p.m. Monday. Argonne National Laboratory is operated by the University of Chicago for the U.S. Department of Energy. Vol. 51, No. 30.

Classified Ads

MISCELLANEOUS

BEANIE BABY BEARS — Curly. \$13. Princess. \$40. Erin. \$45. Valentino. \$15. Peace. \$30. Fortune. \$45. McDonalds, '98 set. \$75. Barry Smith, (630) 910-3972.

MISCELLANEOUS — Set of king-size water bed sheets. \$20. Mattress pad. \$5. Set of queen size water bed sheets, new. \$20. New beige bed rails for queen-size water bed. \$25. Water bed heater. \$10. Drain. \$2. Bonnie Ritchey, (815) 436-3452.

MISCELLANEOUS — Lake pier, 3 sections, w/hardware. \$450. Sofa bed, queen. \$180. Queen size bed w/mattress. \$100. 2, twin beds w/mattress. \$100. Dresser w/mirror. \$50. Dresser. \$30. Dan Bodnaruk, (630) 789-1615.

BRICKS — 70 boxes of bricks, 40 per box, each box covers 6 sq. ft. 39 boxes, corner bricks, 18 per box. \$300/all. Mark Randolph, (815) 467-5776.

CANOE — 16', w/2 life vests & oars. Mark Randolph, (815) 467-5776.

BOAT - 24' C&C sailboat, includes trailer, dinghy, and 2 motors, call for list of all equipment included. Lee Harris, (815) 723-5903.

BEARS TICKETS — 2 tickets, Pre-season: Aug. 21 - Buffalo, 7 p.m., Aug. 28 - New York, 7 p.m. Regular season: Nov. 29 - Tampa Bay, Dec. 20 - Baltimore, 15 row of north end zone. \$86/game, includes parking pass. Lori Greenwood, (815) 741-0257.

BOAT TRAILER — Row or Jon boat trailer, w/spare tire. \$115. Sue Cunningham, (630) 257-2580.

BICYCLE — Schwinn Varsity, 10-speed, excellent condition, recently overhauled, new cables, inner tubes & brake pads. \$50. Scott Benes, (815) 886-3787.

ROLL BARS — w/Boseh lights, full size truck. \$50. Dave Garbin, (815) 372-2602.

WATER SKI — Slalom water ski, very good condition. \$75. Dave Garbin, (815) 372-2602.

MISCELLANEOUS — Graco baby stroller, very good condition. \$25. Infant car seat., very good condition. \$20. Laura Dobczyk, (815) 727-5529.

PING PONG TABLE — Regulation table w/net, paddles, balls included, folds for easy storage, excellent condition. \$100 o.b.o. Mary Simeone, (815) 729-4052.

WASHER/DRYER — Whirlpool, mini-stack, good for apartment living. \$150. Michael Arellano, (630) 695-9235.

MISCELLANEOUS — Sega Genesis game system, like new, still in box w/game. \$40. 7, Sega games. \$75. Art DeBaere, (630) 213-4427.

MISCELLANEOUS — Sport cards, over 3,300, mint cards. \$40. Kenner starting line-up figures, mint in box. \$6/each. Art DeBaere, (630) 213-4427.

MISCELLANEOUS — Boy room furniture, includes chest, desk/hutch, head board, night table & chair. \$200. Dinning table w/5 chairs & china hutch, good condition. \$250. Lawn mower. \$190. Dehumidifier. \$60. Om Singh, (630) 221-0717.

Classified ad request forms are available in stockrooms, at the Office of Public Affairs in Building 201, and at Argonne-West's Building 752, Room D109. The old half-sheet forms are acceptable, but note that the deadline is incorrect. Deadline for classified ads is **5 p.m. Monday.**

Requests can be submitted by fax to ext. 2-5274, or by inter-office mail to Evie Fagan, Building 201, Room 2U-09 (OPA-201). A drop-off box is located at the *Argonne News* office, Building 201, room 2Q-02 and at 2U-09.

Request forms must be signed and must include a home phone number. Ads cannot be accepted by phone or electronic mail. Please limit ads to 25 words; longer ads may be edited. Housing listed for sale or rent is available without regard to race, creed, color or national origin.

Argonne-West employees are welcome to submit classified ads to *Argonne News*. Request forms are available at the office of Argonne-West Correspondent Dolores Lagerquist, Building 752, Room D109. When completed, fax the request form to the *Argonne News* office at (630) 252-5274.

COMPUTER GAMES — Reader Rabbit, ages 4-6. \$18. The American Girl Premiere, ages 7-12. \$22. Nascar 2 Racing. \$22. Chuck Gettemy, (630) 910-0462.

WORD PROCESSOR — Brother, Whisper Writer, model 7000 J, complete w/monitor, manual, new. \$160. Dale Mohr, (630) 305-7265.

MISCELLANEOUS — Zenith stereo console, AM/FM, turntable w/CD cassette capability, excellent speakers, great condition. \$100. 22" charcoal grill, kettle type. \$20. Laurie Scheiblein, (815) 838-1035.

EXERCISER — Aerobic glider exerciser, like new. \$25. Sharon Cleary, (630) 778-8754.

GARAGE SALE — 2-family, Sat., Aug. 8, 9 a.m. - 5 p.m., 19157 W. Jacquie Avenue, Lockport (College View). Julie Emery, (630) 579-8459.

AUTOMOBILES

1987 FORD — F150 pickup, 25K miles on rebuilt motor, new tires & paint. \$3,500. Mark Randolph, (815) 467-5776.

1993 CHEVROLET — S-10 Blazer, 4 x 4, Tahoe package, 6 cyl., 4.3 L, AT, PS, PB, PM, PW, PDL, AC, cruise control, tilt steering, AM/FM stereo cassette, velour/cloth seats, new tires, brakes & battery. \$10,900. Mark Jilek, (815) 436-0152.

1986 TOYOTA — Corolla, 4-door, 5-speed, manual, PS, AM/FM, blue, 140K miles, new exhaust pipe & muffler. \$1,000 o.b.o. Alex Belgovskiy, (630) 769-1779.

1990 TOYOTA — Corolla, 71K miles, excellent condition, garage kept, second owner, never any problem. \$3,800. Emie Tranhtenberg, (630) 427-0237.

1991 FORD — Taurus, AC, AT, cruise, all power, new tires, V6, 113K miles, runs great. \$3,000 o.b.o. Juha Uusitalo, (630) 421-7172.

1992 PLYMOUTH — Voyager SE, 7-passenger, AT, PDL, tilt, cruise, AC, many extras, garaged, excellent condition, one owner. \$5,995. Louis Harnisch, (630) 257-2345.

1990 MERCURY — Cougar LS, 3.8LV6, AT, AC, cruise, PS, PB, PW, PDL, power seat. digital dash, remote auto alarm w/keyless entry. \$4,000 o.b.o. Phil McNamara, (708) 388-5437.

1988 CHRYSLER — New Yorker, 4-door luxury sedan, dark red, fully loaded, excellent body & running condition, 82K miles. \$2,800 o.b.o. Oleg Polouektov, (630) 427-0243.

1991 GM TRUCK — Sonoma SLE clubcab, AT, 4.3LV6 engine, 67K miles, AC, AM/FM stereo cassette, fog lamps, digital display, bedliner. \$6,100. Ron Sundell, (708) 246-8623.

1979 CHEVROLET — Suburban, good towing vehicle, AC, frame mounted hitch. \$900 o.b.o. Bonnie Ritchey, (815) 436-3452.

1984 FORD — LTD, white, 4-door, sedan, 77K miles, good transportation car, runs well, good tires, new battery. \$950 o.b.o. Karl Vorres, (630) 325-0931.

1985 HORSE/CAMPING TRAILER — Lazy 'N', 2 horse s/s, w/deluxe living quarters, excellent condition, stored inside. Marion L. Kopriva, (630) 325-0512.

1987 FORD — Conversion van, hi-top 302 V8, excellent condition, loaded, 75K miles, 4 captain chairs, folding rear seat into bed, color TV, CB radio, excellent tires, brakes & exhaust system. \$4,300 o.b.o. Dale Mohr, (630) 305-7265.

1988 MAZDA — 323 hatchback, AT, runs well, needs some work. \$750 o.b.o. George Lange, (815) 838-8536.

HOUSING

HOUSE/SALE — 8315 Helen Court, Downers Grove, IL., 10 minutes from lab, 2-story, 3,250 sq. ft., 3 bedrooms, 2 baths on second floor, kitchen w/dinette, family room, formal dining room, living room, bath on main floor, finished basement. \$249,900. John Hansen, (208) 523-4445.

LOT/SALE — Lake of the Ozarks. \$17,500. Todd Trotter, (630) 261-9750.

TIMESHARE/SALE — Austria. \$6,500 & exchangeable. Todd Trotter, (630) 261-9750.

HOUSE/RENT — Ranch, 3 bedrooms, 1 bath, 1-car garage, fireplace, new 6-panel pine bedroom doors w/more upgrades throughout, Wheaton schools, swimming pool, Jacuzzi, pool table & more, easy access to I-88 & shopping. \$1,175/month + first month's rent & security deposit. Thomas Meier, (630) 393-3688.

ROOM/RENT — Use of kitchen & laundry, 6 miles from ANL, Bolingbrook, smoking environment. \$350/month. Renee Irwin, (630) 972-1726.

HOUSE/SALE/RENT — 3 bedrooms, 1 bath, Bolingbrook, attached 1-car garage, fireplace, CAC, storage shed, new dishwasher, gas range & tile in kitchen & bath, newer roof ('96) beautiful oak built-in bookcases in family room, close to lab, schools, shopping & village services. \$103,900. Kevin Brown, (630) 378-4630.

ROOM/RENT — 5 miles from ANL, clean. \$450. Soenke Seifert, (630) 325-1216.

LOT/SALE — 706 Mack St., Joliet, Cathedral area, mature trees. \$22,500. Kimberly Herman Perona, (815) 723-8509.

HOUSE/SALE/RENT — 2 years old, Naperville school district 204, across future park, many upgrades, large duplex, over 1600 sq. ft., 3-bedrooms, 2.5 baths, loft, LR, DR, kitchen, FR, walk in closet in master bedroom, landscaped, large lot, 20 minutes to lab. \$143,000. Chandani Udawatte, (630) 212-2751.

HOUSE/SALE — Far west Joliet, 3 bedrooms, 1.5 baths, large kitchen w/oak cabinets, family room w/wood burning fireplace, CA, 2-car attached garage, appliances stay, New Troy grade school 3 blocks. \$114,900. C. Smith, (815) 729-0553.

WANTED

WASHING MACHINE — Used, Renee Irwin, (630) 972-1726.

ROOMMATE — To share 3 bedroom house w/single mom, Romeoville, includes all utilities, 15-20 minutes to lab. \$425/month. Joanne Thomas, (815) 723-0681.

CABINET — Glass front and side display cabinet or curio cabinet & an oak dresser. Reasonably priced. Jackie York, (815) 439-1686.

ROOMMATE — To share 3 bedroom apartment w/2 other people, start Sept. 1, Westwood in Woodridge, prefer non-smoker. \$435/month. Kumar Sharma, (630) 427-1275.

TO BE GIVEN AWAY

KITTENS — Tabby, 2 female kittens, 9 weeks old, along with 1-2 year old mom, healthy, friendly & groomed, ready for good home(s). Joanne Thomas, (815) 723-0681.

STEREO SYSTEM — Antique stereo system, Lloyd AM/FM channel receiver w/Fisher stereo cassette deck, model CR-113. Sally Peters, (630) 759-2749.

Need information about

Benefits?

Travel?

Publications?

Cafeteria menus?

Telephone services?

Argonnet

<http://www.anl.gov/OPA/argonnet/>

Argonne in the News

Examples of some of the dozens of articles about Argonne and its research appearing in the nation's newspapers each month.

Breakthrough Reported on Gene-Reading 'Biochip'

By BETH BURESTRAND
Washington Post Staff Writer

A Department of Energy laboratory and two technology companies said yesterday that they have developed technology that will allow researchers to decode human genes 1,000 times as fast as current methods allow. The partners announced a program aimed at lowering the cost of the technology and commercializing it for widespread use.

"We could very well be witnessing the birth of a new multibillion-dollar industry that will allow our children and their children to live in a substantially healthier world," said Secretary of Energy Federico Peña.

The department's Argonne National Laboratory has teamed up with computer-chip giant Motorola Inc. and Packard Instruments Co. in an effort to make the technology commonplace within a few years. The two companies will contribute \$19 million to the project over the next five years.

"This is an exciting development in a clearly important area," said William Haseltine, chief executive of Human Genome Sciences Inc. of Rockville, a major gene research company. "That being said, it is a highly competitive area fraught with patent complications." Other companies are in a race to develop competing versions of the technology.

If what Argonne and its corporate partners have pioneered works as promised, medical researchers and physicians could in minutes conduct tests on individuals that would identify genes and flag predisposition to particular illnesses such as cancer.

The technology could detect non-genetic illnesses in humans, agricultural diseases and environmental pollution, officials said. It might determine whether a particular drug would work on a particular patient.

Doctors can already do some such tests today, but they are costly and time-consuming. To make them widely available, scientists would put drops of body fluid on tiny devices called "biochips." Analogous to computer chips, which perform millions of mathematical calculations per second, biochips perform thousands of biological reactions, such as decoding genes, in a few seconds, said

Rudyard Istavan, a Motorola corporate vice president.

"Instead of slowly reading DNA letter by letter, with this biochip we can rapidly read words, sentences and sometimes even a whole paragraph at a time," said Andrei Mirzabekov, who heads the Engelhardt Institute of Molecular Biology in Moscow, which has been Argonne's research partner. "It's like speed-reading the genetic code with 100 percent comprehension."

"By combining the biochips with robots and computers, we can in a matter of seconds find one genetic variation among 3 billion, he said. "Conventional methods take days."

The technology to do all these things has been tested and is effective, an Argonne spokeswoman said. The problem is that production of the chips is so expensive that they cannot be made available on a widespread basis. Officials hope that Motorola's expertise in low-cost production of computer chips will be applicable to biochips as well.

The Department of Energy, the Pentagon's Defense Advanced Research Projects Agency, the Russian Academy of Sciences and the Russian Human Genome Program have given the project \$10 million in funding since 1994.

Now Motorola and Packard will contribute a total of \$19 million over the next five years to develop instrumentation and mass-production techniques for the technology. In return, Motorola and Packard will get the licensing rights to the 19 inventions that Argonne developed in conjunction with the research.

The market could be big, but the path to profits is not totally clear.

One major competitor in the biochip arena, California-based Affymetrix Inc., said that the technology the Argonne group claims to have pioneered may in fact infringe on Affymetrix patents.

Affymetrix's senior vice president and general counsel, Vern Norviel, said his company has 14 patents that have been granted but not yet published. So, he said, he finds it hard to believe the Argonne group knows for certain that its process is a breakthrough.

Istavan said there are major differences between his group's biochip and Affymetrix's. The new chip, he said, analyzes longer strands of genetic material and can do so in three dimensions.



Argonne and its partners hope that with biochips such as these, physicians will be able to test patients and quickly identify genes that show a predisposition to particular illnesses.

WASHINGTON POST
WASHINGTON, DC
TUESDAY 834,641
JUN 30 1998

CHICAGO TRIBUNE
CHICAGO, IL
TUESDAY 864,584
JUN 30 1998

LOS ANGELES TIMES
LOS ANGELES, CA
TUESDAY 1,021,121
JUN 30 1998

PHILADELPHIA INQUIRER
PHILADELPHIA, PA
THURSDAY 457,932
JUL 2 1998

SAN JOSE MERCURY NEWS
SAN JOSE, CA
TUESDAY 290,115
JUN 30 1998

ATLANTA JOURNAL
ATLANTA, GA
TUESDAY 189,332
JUN 30 1998

Note: This story also ran in the Singapore Straits Times; Crain's Chicago Business; Daily Herald, Arlington Heights, Ill. (all editions); Daily Press, Newport News, Va.; Austin-American, Austin, Texas; New Haven Register, New Haven, Conn.; and dozens of other newspapers.

Advanced X-ray machine unlocking secrets of the past

By William Mullen
Chicago Tribune

On a recent night at the Argonne National Laboratory outside Chicago, a piece of the world's newest technology was brought to bear on some of its oldest.

Inside a lead-lined room lay a metal figurine — 11 inches tall and 5,000 years old — that represented the dawning of a new age in ancient technology.

Nearby, scientists huddled around a computer screen in a lab attached to Argonne's billion-dollar, 2-year-old X-ray machine, the Advanced Photon Source. By remote control, the scientists bombarded the figurine — the oldest tin bronze object ever found — with electrons traveling at 99.97 percent the speed of light.

As the beam scanned the figurine, it unlocked secrets about the object's composition and genesis — lessons that could be invaluable in helping the modern world learn about man's early use of metals.

And by the time the night was over, the scientists were convinced they had just used the greatest new tool in archaeology since the 1949 invention of radiocarbon

dating.

Within hours it gave some new insights into the methods of the artisans who made the figurine, people from an advanced but unknown pre-writing culture.

Though there are two other photon source rings of similar power in the world, in Japan and France, this was the first time one had been used on archaeological material. Until now, the only way to find out more about how the figurine had been manufactured would have been to cut it up and melt it down, something nobody was willing to do.

As the beam scanned the figurine, an astonished Aslihan Yener said, "Look at that." Yener, professor at the Oriental Institute at the University of Chicago, insured the figurine for \$500,000 to bring it to Argonne for this night of experiments.

PITTSBURGH POST-GAZETTE

PITTSBURGH, PA
MONDAY 241,798
MAY 11 1998

Disaster masters

Area agencies, fire departments, brave 'storm' in tornado drill

By Ken Vogt
The Metropolitan

For a year, Argonne National Laboratory officials knew a tornado was going to hit the facility. When it did on Saturday, it left cars damaged, log debris blocking roads, and a logistical nightmare for responding emergency crews.

At one corner of the site, a car caught in the tornado hit a fire hydrant, flipped over and caught fire. Nearby, a van sat perched on the hood of a Ford Escort.

Yet, despite reports of six deaths and another 28 or so injuries, everyone involved walked away unharmed.

The "tornado" was actually part of a disaster drill at Argonne National Laboratory. Personnel from 18 fire departments, the DuPage County Forest Preserve District and other area disaster-service crews took part in a simulation of a tornado strike.



Buttress Chief Tim Oskovich of the Lemont Fire Protection District stands atop several trees that were knocked down, blocking the road. During a tornado drill held Saturday at Argonne National Laboratory, firefighters had to make their way past trees to rescue survivors.

Note: This story also ran in the Daily Herald, Arlington Heights, Ill. (all editions); Press Publications, Elmhurst Ill. (all editions); Suburban Life-Citizen, Berwyn; Doings Newspapers, Hinsdale, Ill. (all editions), and many others.